DOCUMENT RESUME

ED 297 026 TM 012 005

AUTHOR Sanders, Jack; And Others
TITLE The PRO-S/E System for Assessing School Effectiveness: Development, Implementation, and Follow-up.
PUB DATE 23 Apr 87
NOTE 24p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, DC, April 20-24, 1987).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Educational Assessment; Educational Improvement; Educational Planning; Educational Quality; Elementary Secondary Education; *Evaluation Methods; Factor Analysis; Inservice Teacher Education; *Program Evaluation; School Districts; *School Effectiveness; Technical Assistance
IDENTIFIERS *Appalachia Educational Laboratory WV; Excellence in Education; *Profile of School Excellence

ABSTRACT

The development and structure of the Profile of School Excellence (PRO-S/E) are described, and the needs for which the PRO-S/E was developed are explained. A product of the Appalachia Educational Laboratory (AEL) in West Virginia, the PRO-S/E has been involved in evaluation and improvement planning and intervention for 25 urban and regional school districts. The AEL offers School Excellence Site status to districts within AEL's service region (Kentucky, Tennessee, Virginia, and West Virginia) following their participation in the PRO-S/E process. Most schools call on the AEL for follow-up technical assistance after PRO-S/E studies. Assistance usually involves the provision of inservice training. In 1985, the PRO-S/E teacher and student surveys (for grades 1-4 and 5-12) were revised. In addition, a factor analysis of the four PRO-S/E instruments was undertaken, and the data analysis system, which now runs on a BASIC language program, was upgraded. Brief analyses are provided of the use of PRO-S/E in a school district in Lexington, Kentucky; training of university faculty in Kentucky, Tennessee, and West Virginia to use the PRO-S/E; and follow-up with school districts after use of the PRO-S/E. Five figures are attached. (TJH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED297026

The PRO-S/E System for Assessing School Effectiveness: Development, Implementation, and Follow-up

By:

Jack Sanders, Appalachia Educational Laboratory

Jack Barnette, Memphis State University

Allan Osborne, Frankfort (KY) Independent Schools

Jane Hange, Appalachia Educational Laboratory

Peggy Vanco, Memphis Speech and Hearing Center

Presented as a Symposium at

The American Educational Research Association
Annual Meeting

April 23, 1987
Washington, DC

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Marilyn Slack

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TM012005

BEST COPY AVAILABLE

DEVELOPMENT OF THE PROFILE OF SCHOOL EXCELLENCE - Jack Sanders

The purpose of this section of the paper is to describe the development of the Profile of School Excellence (PRO-S/E), including an explanation of the needs for which the PRO-S/E was developed, an explanation of the literature on which the PRO-S/E was based, a review of the structure of the PRO-S/E, the use of the PRO-S/E by practitioners, and suggestions for next steps in its continued development.

Need and Rationale

The PRO-S/E was developed in response to the expressed needs of local school superintendents, principals, board members, and supervisors in AEL's service region. This development began in 1982. Prior to that time, school administrators had been barraged with information about the outcomes of research on effective schools. The information came from presentations at professional meetings and journal articles, as well as from workshops and publications provided by AEL and other service providers. Also, these administrators were sensitized to the spate of forthcoming national education status reports from groups such as the Business-Higher Education Forum, the National Commission on Excellence in Education, the Paideia Group, and the Twentieth Century Fund Task Force on Federal Elementary and Secondary Policy; from organizations such as the College Board, Education Commission of the States, the National Association of Independent Schools, the National Association of Secondary School Principals, and the National Center for Educational Statistics; and from such individuals as Ernest Boyer, James Coleman, Emily Feistritzer, and John Goodlad. The administrators in the region asked AEL to develop a method for them to respond rationally to this new information about effective schools. The method, they said, should provide them with a basis for discussing with teachers, staff, and board members possible alternatives about the allocation of school improvement resources. The administrators, many from rural and resource-poor districts, urged that the method be inexpensive and non-disruptive of school routines. Finally, school officials urged that the method produce a report which presented outcomes understandably, using both narrative and graphic formats.

Resource Review

AEL responded by searching for extant instruments and processes that might address or be adapted to address the needs and conditions articulated by the administrators. Literature searches and communications with the network of Regional Laboratories and university-based R & D Centers produced literature synthesis and lists of school effectiveness charateristics, but no validated instruments or processes that could be adapted and packaged to address the need. Of the syntheses and lists, two were judged pertinent to the AEL development effort: (1) a synthesis of 11 characteristics of effective schools and related literature by Larry Hutchins of McREL, and (2) the five correl-

The PRO-S/E is a product of the Appalachia Educational Laboratory.
c 1982, Appalachia Educational Laboratory, Inc., P.O. Box 1348, Charleston, WV 25325

ates of effective schools reported by the late Ron Edmonds. Sensitive to the fact that many of the early school effectiveness studies were conducted in urban elementary settings, AEL developers elaborated the Hutchins literature review and sharpened the definitions of the 11 characteristics: needs basis, objectives, expectations, roles and responsibilities, conditions and resources, instructional time and task orientation, use of assessment, rewards and reinforcement, code of behavior, school climate, and parental involvement (see Attachment A for definitions). From Edmonds' five correlates, AEL adapted the notion of disaggregating standardized test scores as a twelfth indicator of effectiveness. Disaggregation allows for comparison of high and low SES group attainment of basic skills. The characteristics and the developer's adaptations are described further in Sanders, Shively, and Machesney (1984) and Sanders, Barnette, and Vanco (1986).

Structure

To assess the characteristics, AEL developed eight data collection instrments for use in local school districts (see Attachment B for further details on these instruments). Prior to an on-site visit by PRO-S/E administrators, district personnel receive and complete four types of instruments: district data form, superintendent interview form, school data form (one for each school), and principal interview form (one for each principal). During the site visit, the central office staff familiar with the schools complete school rating forms for each of the schools, interviews are conducted with the superintendent and principals, and other instruments are left for the principal to administer in his/her school: a teacher survey (50% sample), student surveys for grades 1-4 and 5-12 (10% sample), and a form for reporting disaggregated test scores. Within five days, all surveys are to be administered and returned to AEL for analysis and interpretation. Shortly thereafter, the disaggregated test scores are submitted to AEL for analysis. AEL prepares a written report to the superintendent within ten weeks of receipt of all data. The report provides extensive profile and summary data tables for each school and a narrative report summarizing the findings for each characteristic across schools. R & D-based programs addressing the most salient needs are identified for school officials' consideration. AEL staff provide follow-up technical assistance to the district as needed.

Results

PRO-S/E studies have been conducted in more than 25 school districts. Some of the districts have been urban, some rural, some large, and some small. Officials of most districts using the PRO-S/E report that the study was used as a basis for subsequent school improvement planning and intervention. Officials also report that PRO-S/E study results confirm their perceptions about the strengths and weaknesses of the district's schools. Most districts call on AEL for follow-up technical assistance after PRO-S/E studies. This assistance typically involves provision of inservice training aimed at addressing areas diagnosed as needing attention.

Next Steps

The PRO-S/E was developed as a diagnostic tool school districts could use as a basis for school improvement planning. In addition to the factor analytic studies about the PRO-S/E characteristics which are presently being conducted, AEL is interested in surveying prior adoptation sites to see if changes occurred and the types of changes after use of the PRO-S/E in the district. We would like to know if the district has used other diagnostic assessments which produced findings similar or contradictory to PRO-S/E findings. We would like to know if the district intends to repeat the use of the PRO-S/E, as some have, to see if perceptions about local conditions have changed, particularly those conditions identified as in need of attention to which remediation efforts were directed. Finally, we want to reanalyze both the literature and practitioner experience to identify any special school effectiveness correlates which should be considered as additions or substitutes when studying effectiveness in rural/isolated school districts.

PRO-S/E DATA ANALYSIS SYSTEM - Jack Barnette

The purpose of this section is to describe three activities which were or are being conducted to ensure that the instruments possess content/construct validity and the data analysis system was easy to use and provided useful output to PRO-S/E report writers and school district personnel.

Instrument Revision

In 1985, the PRO-S/E teacher and student surveys were revised. It had been recognized by the PRO-S/E developers that some of the items were not clear, some were asking more than one thing, and others, which used a "check all that apply" format, created some problems in scoring and analysis. All of the items were reviewed on these instruments and several were revised to eliminate or minimize problems in interpretation and scoring. The revised set of items was reviewed by five persons who were very familiar with the school effectiveness literature. These reviewers had two tasks. One was to assess the clarity of each item and the appropriateness of the response set which accompanied the item. The other was to categorize the item into one of the 11 characteristics. Very few of the items were considered in need of revision relative to wording or response set. Items were placed into the 11 characteristics based on the consistency of categorization agreement of the reviewers. A few items were dropped due to lack of agreement and a few others were modified slightly to fit more closely with the characteristic definitions. The reviewers were: Lynn Canady, Phyllis Hotchkiss, Tom Bennett, Joanne Reina, and Jean Coolican.

Prior to 1986, the student survey instrument was given to students in grades 5 or above. It was determined that it might be useful to have a student survey for students in the lower grades. This instrument was developed and field testing in three schools in Memphis, TN in April 1986. The instrument instructions included procedures for reading the items to students in grades 1 and 2, and having students in grades 3 and 4 reading the instrument themselves. Also, prior to this time the staff rating was comprised of

a set of 11 items, one for each characteristic, on which the rater rated the school on a 1-10 point scale. It was determined that this did not provide very much information on why a rating might be high or low, so the instrument was expanded to request responses on three to five items within each characteristic category. These items were developed to parallel items on the teacher and student surveys. This instrument was field tested in April 1986. Both of these have been added to the set of PRO-S/E instruments.

Factor Analysis Study

As another approach to testing the validity of the PRO-S/E instruments, the author is conducting a factor analysis of the four survey instruments. While it has never been the claim that the 11 characteristics are "factors" in the psychometric sense, it was decided that such an analysis could provide further information upon which the instruments could be improved or defended as having a reasonable level of construct validity. The final report for the factor analysis study will not be complete until May 1987.

While the final analysis has not been completed, it is possible to present some preliminary results for the instruments:

1. Teacher survey

   Responses from 575 teacher surveys from two school districts were factor analyzed using a principal components analysis and varimax rotation on eleven factors, accounting for 45% of the variance. Factor 1, which accounted for 18% of the variance, was made up primarily of items from the needs basis, objectives, conditions/resources, and school climate characteristics. Factor 2 had items from several characteristics, but tended to have more items from the parental involvement and rewards/reinforcement characteristics. Factor 3 tended to be comprised of items from the parental involvement, roles/responsibilities, and school climate characteristics. Factor 4 tended to be made up of items from the expectations and rewards/reinforcement characteristics. Factors 5 and 10 were made up totally from items from the instructional time/task orientation characteristic. Factor 6 was made up of items from the conditions/resources characteristic, factor 7 was made up of items from the roles/responsibilities characteristic, factor 8 was made up of items from the needs basis characteristic, and factor 11 was made up of items from the code of behavior characteristic. Factor 9 had no majority of items from any characteristic.

2. Student survey (grades 1-4)

   Responses from 623 surveys from two school districts were factor analyzed using a principal components analysis and varimax rotation on seven factors, accounting for 42% of the variance. The results indicate that there is not a very clear factor structure relative to the eleven characteristics. Use of this instrument has revealed that there is relatively low variance in the responses. Elementary students tend to give very positive ratings on this instrument. Only the items from roles/responsibilities, needs basis, rewards/reinforcement,

and use of assessment tended to load on specific factors.

3. Student survey (grades 5-12)

Responses from 1105 surveys from two school districts were factor analyzed using a principal components analysis and varimax rotation on eight factors, accounting for 35% of the variance. The results indicate that factor 1 was primarily made up of items from the needs basis, rewards and reinforcement, and about half of the school climate characteristic items. Factor 2 was comprised mostly of items from the objectives and expectations characteristics. Factor 3 was a combination of items from the school climate, conditions and resources, and instructional time/task orientation characteristics. Factor 4 was clearly comprised of items from the roles and responsibilities characteristic, factor 5 was clearly comprised of items from the parental involvement characteristic, and factor 6 was clearly comprised of items from the code of behavior characteristic. Factor 7 tended to relate to items from the use of assessment characteristic and factor 8 tended to have items relating to the instructional time/task orientation characteristic. While this factor structure is not totally consistent with the separate 11 characteristics, the results are somewhat supportive of the set of characteristics in that those factors which have items from different characteristics could reasonably expect to have had the combinations observed.

4. Staff rating form

The responses on the staff rating form for 351 respondents from two school districts were factor analyzed using a principal components analysis and varimax rotation on nine factors, accounting for 58% of the variance. The results indicate that for six of the characteristics item loadings were consistent with factors. These six characteristics were: needs basis (factor 2), objectives (factor 6), instructional time and task orientation (factor 7), rewards and reinforcement (factor 5), code of behavior (factor 3), and school climate (factor 1). For some of the other characteristics, all items but one were related to a specific factor. These were: expectations (factor 1), roles and responsibilities (factor 4), use of assessment (factor 8), and parental support and involvement (factor 1). Note that factor 1 includes the characteristics of school climate, expectations, and parental support and involvement. The only characteristic which had more than one item loading on different factors was conditions and resources. Two of the items loaded on factor 4, which related to roles and responsibilities. The other three items loaded on: factor 8, related to use of assessment; factor 1, related to school climate; and factor 2, related to needs basis. In summary, the staff rating form items demonstrated a relatively high level of structure consistent with the 11 characteristics.

Data Analysis System

The original data analysis system, used prior to 1985, was very time consuming and not as useful as possible. It required manual data entry and several steps in the processing to complete the graphic profile display. This author was hired as a consultant to AEL and then as a full-time staff member to develop a system which was easier to use and more thorough in providing potentially useful output. The first fully automated system was developed using an Apple computer and card reader for data input. This system was found to be easy to use and it did provide analysis output not available previously such as profiles across schools on each characteristic and item analysis by characteristic to be used to determine the relationships of items to the characteristic score. The major problem with the system was the difficulty in using the card reader. Mechanical problems necessitated almost constant attention of the user. With this problem, as well as the need to include in the system the two new instruments, it was decided to set up the system using an IBM PC and an optical scan reader for data input. This system is now operational and requires a minimum of training or attention for its use. The present system is programmed in BASIC and compiled to decrease run time.

The system provides several types of output for use by report writers and PRO-S/E clients. Some examples of the output are included as Attachments.

1. For each school, for total elementary, for total middle, for total secondary, and for total district the following are provided:

    a. Characteristic means and standard deviations for each respondent type: students, teachers, and staff (Attachment C),

    b. Figure displaying means for each characteristic for each respondent type (Attachment D),

    c. Ranking from high to low of the 11 characteristics for each respondent type,

    d. Discrepancy analysis for each characteristic among the respondent types,

    e. Item analysis for the teacher survey (the item analysis ranks the 11 characteristics from high to low and, within each characteristic, ranks the items high to low on the item scale (Attachment E),

    f. Item analysis for the student survey (grades 5-12),

    g. Item analysis for the student survey (grades 1-4), and

    h. Item analysis for the staff rating forms.

2. Means on each characteristic by respondent type are presented across

the schools in the district in tabular and graphics forms (Attachments F and G).

3. Achievement by SES group analysis for schools submitting the disaggregated data, including a test for homogeneity of proportions.

The analysis outputs permit looking at the data across dimensions of school type, characteristic, and respondent type. They provide the basic information needed to interpret several aspects of the PRO-S/E.

USE OF THE PRO-S/E IN A LOCAL SCHOOL DISTRICT - Allan Osborne

Having held administrative posts in three school districts in a six year span, I had first hand experience with the "terrible T's" - turf, tradition, and trust. During this period of continued transition, it became apparent that - be it fact or fiction - perception is ninety-five percent reality; in other words, we are what we think we are. Consequently, upon accepting the superintendency in Frankfort, Kentucky's capital, I realized the necessity of measuring the prevailing perceptions of the school district.

Early fall of 1983, I was introduced to the PRO-S/E by Dr. Jack Sanders of AEL at an educational consortium meeting in Lexington, Kentucky. Using an old cliche, "it was just what the doctor ordered." The PRO-S/E, a research-based set of instruments, would allow the board of education, administrative staff, faculty, and me to view the district's perceived strengths and weaknesses. This bird's eye perceptual view would be that of the students, faculty, and administration. The information gained could (eventually would) build a stable educational institution.

The PRO-S/E was administered on December 2, 1983, and a final report was presented to our board of education in late January 1984. At this point, no one could imagine what would take place in our small inner-city school district over the next twenty-four months.

Certain things became evident to us immediately. As practitioners, we needed research-based support data to render sound educational decisions; the PRO-S/E provided this. Also, it stood to reason that we needed to pay attention to research-based solutions. The PRO-S/E final report provided research-based options which might help in attacking our perceived weaknesses.

Frankly, from a personal point of view, the most important aspect of the PRO-S/E was the protection it offered my hind-side. I had already noted most of the perceived weaknesses illustrated by the PRO-S/E, but now I had support data which would allow us to direct attention to the perceived weaknesses. It was or would not be "Osborne feels and says thus and so." The PRO-S/E provided the spring board by which we could dive head first into our problems with no one individual or group being the fall guy.

The entire process was beneficial to the district; however, the research-based solutions recommended for our perceived weaknesses proved to be the most helpful. Many positive changes have occurred in our district because of

the information generated by the PRO-S/E.

According to the data, our teachers viewed the general area of code of behavior as unacceptable. Quite frankly, it was the general perception that the students were in control of the schools and there was general disregard for rules and regulations. AEL recommended for our consideration a program called Classroom Organization for Effective Teaching (COET). This program became an integral part of the 1984-85 inservice program. Staff assistance was provided by AEL not only to implement COET, but also to incorporate a task management analysis model.

The most critical weakness as illustrated by the data was the negative attitude a majority of our teachers held concerning the ability of their students to achieve the academic objectives of their classes. Simply put, teachers had low expectancy for student achievement. The recommendation here was a program known as Teacher Expectations and Student Achievement (TESA). Contrary to recommendations, we implemented this program by mandate. TESA, more than any single inservice/staff development program, has had a positive impact on our school district. The Kentucky Department of Education recently started a process which ultimately will implement TESA in every district in the Commonwealth. The first group of state trainers used our district for their observation training.

The PRO-S/E and AEL share in our many successes of the past three and one-half years. The list does not end with COET and TESA but includes CAMEL, Talents Unlimited, Adaptive Learning Environmental Model (ALEM), middle school reorganization, high school eight period day reorganization, TESA expansion model, and more. This is a tribute to AEL and our fifty-eight building staff members.

I will be recommending to our board of education that during the 1988-89 school year we once again utilize the PRO-S/E. For continued success we must, on a periodic basis, check our perceptions. Assuredly, we become what we think we are, and we are Frankfort Independent Schools.

TRAINING OF UNIVERSITY FACULTY IN THE USE OF THE PRO-S/E - Peggy Vanco and Jane Hange

The Appalachia Educational Laboratory has a small number of staff members trained in conducting, analyzing data, writing, and follow-up of PRO-S/E administration. The PRO-S/E is but one part of the information, training, and technical assistance provision offered to districts, educator associations, and individual educators as part of AEL's regional laboratory services. These two constaints led PRO-S/E developers to create a mutually beneficial opportunity in training university faculty as PRO-S/E associates. This section of the paper is organized around key questions significant to understanding PRO-S/E associate training.

How do faculty and colleges of education benefit from becoming PRO-S/E associates? Traditionally, individual faculty and colleges of education must demonstrate their commitments to serve the education community, school dis-

tricts which provide them with undergraduate and graduate students, research access, placement for preservice teacher field experiences, and career opportunities for teacher education program graduates. Individual faculty members are often interested in consulting opportunities to supplement university salaries. In Tennessee, university faculty involved in teacher preparation are required to spend at least six days per year in provision of direct service to school districts in the state. Through PRO-S/E associate training, individual and college of education service mandates can be facilitated, while districts receive school effectiveness diagnosis upon which to plan school improvements. Beyond mandates and financial gain ambitions, training in the PRO-S/E can expand an individual professor's knowledge of the school effectiveness literature and establish a framework related to the eleven PRO-S/E school effectiveness characteristics upon which college of education faculty may build staff development/technical assistance programs appropriate for many school districts.

What is the role of a PRO-S/E associate? Following training, an individual faculty member, as a PRO-S/E associate, may contact school superintendents to introduce the PRO-S/E and market his/her services as a PRO-S/E administrator. Following contract negotiations between the associate and the superintendent, the associate contacts AEL with details essential for AEL's role in an administration. The AEL role includes provision of instruments, coded answer sheets for the instruments, data analysis, and provision of data analysis output for use by the associate in preparing the final report. The associate is then responsible for arranging and conducting interviews, distribution of survey instruments and answer sheets to the schools, handling district concerns and questions, submitting the answer sheets to AEL, interpreting the output from AEL, writing the final report, and meeting with the district administrators to present the results, discuss follow-up staff development, and respond to questions.

Why would a faculty member want to handle all the responsibilities of a PRO-S/E administration? Besides the commitment to service, previously cited, a PRO-S/E associate may receive extra compensation for administering the PRO-S/E, assuming his/her university agrees to such an arrangement. The price of the PRO-S/E administration to the district is fixed by AEL on the basis of the number of schools and the number of teacher, student, and staff surveys analyzed. Additional reimbursement for travel costs are also included in the price the district pays. Actual expenditures of an administration may vary depending on the number of faculty and/or graduate assistants involved. The associate's university may, and are encouraged to, use PRO-S/E funds to pay faculty extra compensation for their involvement in the PRO-S/E administration. AEL receives a stipend from the associate's university the first time a PRO-S/E is conducted. This stipend reimburses AEL for training costs. Each time a PRO-S/E is conducted, AEL receives a per-subject fee for answer sheets and data analysis costs. While the associate may incur overhead costs for use of university services and facilities, there should be an adequate amount left to compensate those involved.

What are the objectives and purposes of a PRO-S/E training session? The primary objective of the full-day session is to train associates to handle PRO-S/E contacts, contracts, administration, data interpretation, report

writing, follow-up presentation, and school improvement planning with a minimum of assistance from AEL. AEL staff leading the training session organize activities to accomplish the following six purposes:

1. Acquaint associates with PRO-S/E developers and establish rapport for future communications,

2. Describe administrative procedures, highlighting success hints and problems to avoid,

3. Train associates in PRO-S/E interviewing, survey administration, and data interpretation,

4. Encourage consultant behavior role-taking by associates, many of whom have not marketed their skills independently,

5. Provide discussion opportunities to address associate questions and concerns, and

6. Overview the training manual contents and uses.

What does the manual provide to associates? The PRO-S/E manual is the primary resource an associate needs after training. Arranged in sections corresponding to the step-by-step administration of the PRO-S/E, the manual contains a sample contact letter, a sample contract, an overview of the literature used in the development of the PRO-S/E, effectiveness characteristic definitions, an abstract describing the profile, hard-copy from which surveys may be duplicated, all interview schedules, data analysis examples, hints for writing the final report, and an Administrator's Checklist for the process based on a suggested timeframe.

AEL staff have conducted three training sessions to date in which higher education faculty from Kentucky, Tennessee, and West Virginia have become PRO-S/E associates. During training and in subsequent contacts with associates, AEL staff assess concerns over PRO-S/E administration and provides consultation as associates arrange, administer, interpret, report, and follow-up the PRO-S/E. We believe the training and follow-up, plus AEL's control of data analysis and price, ensure reliable diagnosis of school effectiveness for contracting districts and a productive and profitable relationship with AEL and school districts for the PRO-S/E associates.

FOLLOW-UP WITH SCHOOL DISTRICTS AFTER THE USE OF THE PRO-S/E - Jane Hange

Whether coordinated by AEL or an AEL-trained PRO-S/E associate, one of the most important steps of the process is the follow-up meeting. This overview of PRO-S/E results begins with an explanation of the purpose of the PRO-S/E as diagnosis for goal setting and staff development planning and can lead to a multi-year cooperative arrangement for technical assistance.

The follow-up meeting is convened by the district superintendent approximately 10 to 14 days after he/she receives the PRO-S/E data displays and

summary report. The two to three hour session, conducted by AEL staff or the PRO-S/E associate, is usually attended by the superintendent, central office staff, and building principals whose schools were assessed. The purposes of the meeting are to:

1. Reacquaint district personnel with the purposes of the PRO-S/E and the data sources,

2. Review data display sets for different types of summaries (total schools, total elementary, total middle, total secondary, and for each school),

3. Provide brief interpretation of data displays for most significant characteristics of total district data,

4. Emphasize perceptual basis for the data and PRO-S/E as a "snapshot" of school effectiveness to be used as baseline data for improvement planning,

5. Describe a variety of R & D-based instructional improvement options keyed to the 11 PRO-S/E school effectiveness characteristics,

6. Respond to particular questions in large group and one-on-one consultation, and

7. Offer follow-up correspondence and phone consultation to individual principals as they prepare to present results to faculty and plan school improvements.

AEL offers School Excellence Site (SES) status to districts within AEL's service region (Kentucky, Tennessee, Virginia, and West Virginia) following their participation in the PRO-S/E process. The cooperative arrangement, a non-legal contract between AEL and the district, inaugurates SES status and outlines AEL technical assistance to be provided over a three to five year period. Staff development planning, information acquisition and electronic searches, Resource Center loaned materials, toll-free phone consultation (including Techline), and invitations to participate in training-for-trainers are extended to SES districts. Based upon the district's PRO-S/E results and district priorities, AEL may assist district personnel in implementing an R & D-based program or in becoming trained to lead faculty workshops in one of 13 School Excellence Workshop packages developed to address many of the 11 characteristics of the PRO-S/E. To the variety of products and services offered at no or low cost to the districts, AEL membership is added, providing practitioners with AEL's quarterly newsletter, The Link, and myriad other products and publications from AEL and the Lab-Center network. In exchange for this assistance, the district agrees to allow AEL to evaluate over time the effectiveness and impact these services have had on district teaching and learning practices and outcomes.

Al Osborne, Superintendent of Frankfort Independent Schools (KY), has previously described the working relationship between AEL and a school district that can follow PRO-S/E administration. Another case in point is the

Harrison County School District in Clarksburg, West Virginia, where the PRO-S/E diagnosis of school effectiveness pointed toward parent involvement and use of instructional time as characteristics most in need of improvement. AEL, district administrators, and faculty are working together in the following ways:

1. Development of a five-year educational management plan utilizing PRO-S/E results for the district with similar five- and one-year plans developed by school principals,

2. Technical assistance in bringing on-line a computer (card read) school lunch reporting system, developed by a Harrison County principal, to free up teacher instructional time,

3. Consultations with individual principals and central office staff to interpret PRO-S/E results and plan appropriate school improvements,

4. Invitations to participate in AEL training-for-trainer sessions on "Parent Involvement" and "Community Support Through Public Relations",

5. Participation by the Harrison County Superintendent, Robert Kittle, in the AEL Study Group Annual Conference, and

6. Technical assistance in district-wide computer tracking of student progress.

With 40 schools and 1,043 professional personnel, Harrison County and AEL will undoubtedly identify and capitalize on numerous opportunities for improvement as an AEL SES. But with more than 40 or fewer than four schools, any district can benefit from the PRO-S/E, a diagnosis of school effectiveness often followed by mutually planned prescriptions for school improvement. The PRO-S/E becomes a focal point for discussion and action for the administrators, board members, and faculty in a school district.

References (these are available from AEL):

Sanders, J., Shively, J., and Machesney, J. D. (1984). School effectiveness: Profile of school excellence. Paper presented at AERA Annual Meeting, New Orleans, LA. ED 249 228

Sanders, J., Barnette, J., and Vanco, P. (1986). A system for measuring school effectiveness: The PRO-S/E. Paper presented at AERA Annual Meeting, San Francisco, CA. ED 269 471

ATTACHMENT A

DEFINITIONS

1. Needs Basis: The extent to which school personnel use an in-place system for identifying, teaching, evaluating, and remediating student learning needs.

2. Objectives: The degree to which school personnel prescribe and communicate to students relevant and attainable objectives for each academic course.

3. Expectations: The degree to which school personnel communicate clearly to each student the belief (the expectation) that each can and will succeed in attaining prescribed academic objectives.

4. Roles & Responsibilities: The degree to which school personnel roles are defined and understood and the degree to which school personnel prepare each student to assume an appropriate level of responsibility for learning, to cooperate with others, and to participate in a broad range of academic and non-academic activities.

5. Conditions & Resources: The degree to which school personnel provide students exemplary conditions of learning—that is, grouping students appropriately; presenting and modeling information and skills in an interactive way that properly motivates students; and using excellent instructional materials to assure maximum student participation and success.

6. Instructional Time & Task Orientation: The degree to which school personnel provide students maximum instructional time during class periods and assure that students attend to and successfully engage in appropriate academic tasks during class time.

7. Use of Assessment: The degree to which school personnel use assessment data as the basis for informing students of their academic progress and informing teachers of their students' remediation needs.

8. Rewards & Reinforcement: The degree to which school personnel use an in-place system of reinforcement that recognizes the accomplishments and achievements of student and staff.

9. Code of Behavior: The degree to which school personnel communicate clearly and enforce equitably rules, structure, routines, and consequences governing student behavior.

10. School Climate: The degree to which school personnel create and model a collegial environment in which students receive and return to those around them a sense of caring, personal concern, interest, respect, commitment, and support for persons, property, and ideas.

11. Parental Support & Involvement: The degree to which school personnel have established procedures that encourage meaningful parental and community interest, involvement, and support in students' academic progress.

ATTACHMENT B

INSTRUMENTS

District Data Form: Used to collect data from the superintendent on the district's educational philosophy, description of the schools in the district, results of any district surveys conducted, district budget, rank in state relative to per-pupil expenditure, percent of graduates attending postsecondary institutions, standardized test results, and community information.

Superintendent Interview: Used to collect data from the superintendent on his/her professional background, perceptions of the greatest local educational needs, programs for improving students' basic skills, communication of expectations, encouragement of staff professional initiative, evidence of district successes, communication of standards/code of conduct, teachers' perceptions of professional development, staff roles and goals, staff hiring and orientation procedures, monitoring/evaluation of principals, use of research, perceptions of school climate, perceptions of community/parental involvement, and most serious problems to be faced by the superintendent and principals during the next five years.

School Data Form: Used to collect data about each school on enrollment statistics for past three yers; average daily attendance; pupil-teacher ratio; current innovative programs; any recent survey results; student followup information; newsletters; policy statements on communication of achievement data, use of achievement data by teachers and counselors, and school educational philosophy including teacher code and student code; and, if a secondary school, a listing of courses available.

Principal Interview: Used to collect data from each school principal on his/her professional background; school academic goals and communication of goals to faculty, students, and parents; perceptions of effectiveness of basic skills achievement programs; encouragement of staff initiative; use of fiscal resources; attendance policies; procedures for monitoring instructional time and academic progress; recognition of student academic achievement; rules of classroom behavior; staff roles; evaluation of teachers; perceptions of school climate; encouragement of parental and community support; and problems principals will face in the next five years.

School Rating Form: Used by central office staff to rate each school on the 11 PRO-S/E characteristics.

Teacher Questionnaire: A 50 percent sample of nonitinerant teachers from each school is selected at random to complete a questionnaire that measures perceptions of district and school status on the 11 PRO-S/E characteristics.

Student Questionnaire: A 10 percent sample of students from grades 6-12 from each school is selected at random to complete a questionnaire that measures perceptions of status on the 11 PRO-S/E characteristics.

Test Analysis: There is an eighth instrument used to conduct a study of the schools' achievement test scores and students' socioeconomic status. Sometimes school districts have such studies on file, sometimes not. This study accepts Ron Edmonds' finding that in effective schools, standardized test scores indicate that learning opportunities and achievement are similar for students from various backgrounds and SES.

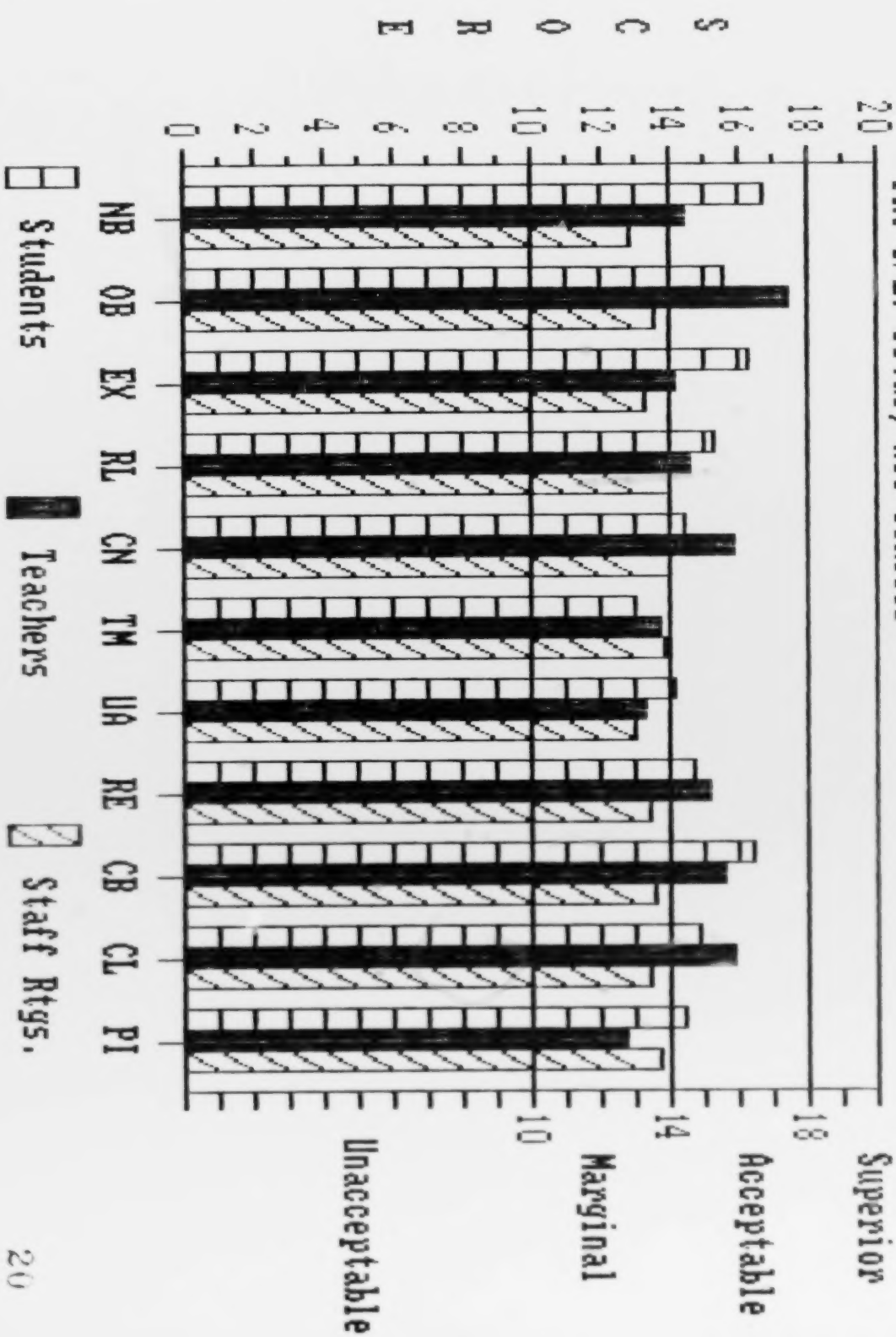
PRO-S/E Analysis, Copyright 1986, The Appalachia Educational Laboratory, Inc.
District: Calaveras County Schools Date: 11/22/86 Group: Total, All Schools Number of Schools= 13

Table I.A Means and Standard Deviations for Each Characteristic by Respondent Group

Characteristic	Students n= 916 Mean	SD	Teachers n= 247 Mean	SD	Staff Rtgs. n= 142 Mean	SD
Needs Basis	16.75	3.18	14.47	2.53	12.82	2.91
Objectives	15.58	4.01	17.36	2.18	13.51	2.51
Expectations	16.25	4.06	14.19	3.43	13.32	2.39
Roles/Responsibilities	15.30	3.49	14.51	2.69	13.96	2.78
Conditions/Resources	14.43	4.54	15.88	2.51	13.96	1.90
Instr. Time/Task Orient.	12.99	4.57	13.74	2.27	13.82	2.86
Use of Assessment	14.10	3.95	13.25	3.86	13.00	2.13
Rewards/Reinforcement	14.65	4.20	15.19	2.35	13.43	2.92
Code of Behavior	16.48	3.50	15.55	2.91	13.57	3.16
School Climate	14.88	4.07	15.92	2.61	13.40	2.36
Parental Support/Involvement	14.36	4.88	12.71	2.54	13.68	2.62

PRO-S/E Analysis, Copyright 1986, The Appalachia Educational Laboratory, Inc.
District: Calaveras County Schools Date: 11/22/86 Group: Total, All Schools Number of Schools= 13

Figure I.A Characteristic Means by Respondent Group



PRO-S/E Analysis, Copyright 1986, The Appalachia Educational Laboratory, Inc.
District: Calaveras County Schools Date: 11/22/86 Group: Total, All Schools Number of Schools= 13

Table VII.A Teacher Survey Responses, n= 247 Page 2

Characteristics Ranked High to Low, Items within Characteristics Ranked High to Low

5. Rewards/Reinforcement (Mean= 15.19 (Acceptable))	n	SC	Rating
1. Frequency praise in class used to reinforce students	247	0.98	Superior
2. Reinforcement of students a topic of faculty meeting/inservice	246	0.95	Superior
3. Special privileges used to reinforce students	247	0.75	Acceptable
4. Students are sufficiently reinforced for academic progress	246	0.75	Acceptable
5. School-wide emphasis on providing systematic reinforcement	244	0.73	Acceptable
6. Frequency notes sent to parents to reinforce students	247	0.70	Acceptable
7. Nomination for Honor Roll/in-school recognition used to reinforce students	246	0.70	Acceptable
8. Special mention in local/school newspaper used to reinforce students	246	0.51	Marginal

6. Roles/Responsibilities (Mean= 14.51 (Acceptable))	n	SC	Rating
1. Roles of school personnel defined in formal documents	244	0.80	Acceptable
2. Teacher understanding of role of principal	247	0.80	Acceptable
3. Students understand their roles/responsibilities	247	0.77	Acceptable
4. Students adequately prepared for their futures	246	0.75	Acceptable
5. Lack of reservations of role/responsibilities as a teacher in this school	247	0.72	Acceptable
6. Students participate in balance of academic and extracurricular activities	246	0.72	Acceptable
7. Teacher understanding of role of superintendent	247	0.64	Marginal
8. Teacher understanding of role of school board	247	0.62	Marginal

7. Needs Basis (Mean= 14.47 (Acceptable))	n	SC	Rating
1. Use of student mistake patterns for diagnosis	245	0.83	Acceptable
2. Rational basis for subject matter decisions	247	0.81	Acceptable
3. Effectiveness of diagnostic procedures	247	0.80	Acceptable
4. Rational basis for subject matter per grade level decisions	245	0.77	Acceptable
5. Usefulness of resources for diagnosing student learning needs	246	0.72	Acceptable
6. Use of information from previous teachers for diagnosis	246	0.70	Acceptable
7. Effectiveness of remediation procedures	246	0.69	Marginal
8. Use of information from state testing program for diagnosis	247	0.68	Marginal
9. Frequency of administration of diagnostic tests	241	0.51	Marginal

8. Expectations (Mean= 14.19 (Acceptable))	n	SC	Rating
1. Communication of expectations to students	247	0.80	Acceptable
2. Teachers have had preservice/inservice on student expectations	244	0.72	Acceptable
3. Students can master instructional objectives of courses taught	246	0.70	Acceptable
4. Students can learn if given proper instruction/remediation	246	0.62	Marginal

SC= Scale Coefficient (Range: 0= Negative/False/Low to 1= Positive/True/High, Group Mean Response on Item)

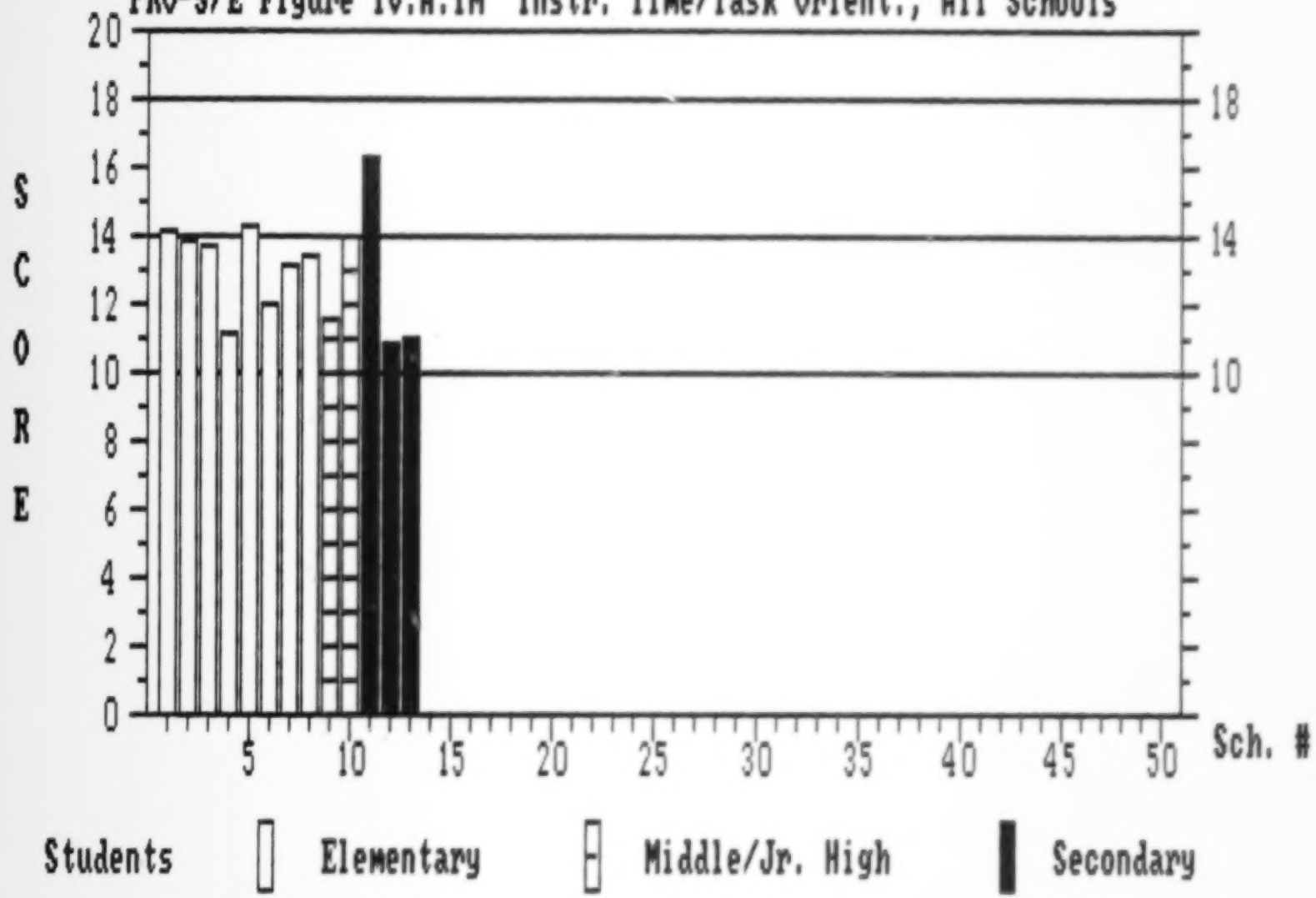
PRO-S/E Analysis, Copyright 1986, The Appalachia Educational Laboratory, Inc.
District: Calaveras County Schools Date: 11/22/86 Group: All Schools Number of Schools= 13

Table IV.A.TM Means for Each Characteristic by School and Respondent Group, Instr. Time/Task Orient.

School	Type	Students n	Students Mean	Teachers n	Teachers Mean	Staff Rtgs. n	Staff Rtgs. Mean
1. Muff Potter Elemen	E	68	14.14	16	13.46	11	14.95
2. Injun Joe Elementa	E	46	13.83	21	12.32	10	12.00
3. Becky Thatcher Ele	E	55	13.77	12	11.11	11	11.92
4. Aunt Polly Element	E	18	11.19	11	14.00	11	13.54
5. Puddn'head Wilson	E	43	14.23	14	14.63	11	13.94
6. Tom Sawyer Element	E	44	11.97	13	14.15	11	14.34
7. Huck Finn Elementa	E	34	13.12	10	14.60	10	14.89
8. Horace Bixby Eleme	E	68	13.40	18	12.93	11	13.74
9. Bixby's Cub Middle	M	60	11.59	19	14.17	11	13.13
10. Extraordinary Twin	M	60	14.00	19	14.53	11	14.95
11. Charles Webster Hi	S	136	16.33	26	13.23	11	14.55
12. Mark Twain High	S	190	10.80	46	14.80	12	13.52
13. Hannibal High	S	94	11.07	22	13.39	11	14.14

Correlations of Group Means Across Schools (Unit of Analysis), and One-Tailed Significance Tests of r > 0

Groups	n	r	Sign.
Student - Teacher	13	- 0.32	N.S.
Student - Staff	13	0.16	N.S.
Teacher - Staff	13	0.64	N.S.



PRO-S/E Analysis, Copyright 1986, The Appalachia Educational Laboratory, Inc.
District: Calaveras County Schools Date: 11/22/86 Group: All Schools Number of Schools= 13

Figure IV.A.TM Means for Each Characteristic by School and Respondent Group, Instr. Time/Task Orient., Students

ATTACHMENT G